

IN THE CLAIMS

Claims 1-10 (Previously Cancelled)

11. (Withdrawn) Apparatus to test for leaks in a fluid system, said apparatus comprising:

- a multi-position selector valve;
- a source of gas under pressure connected to said multi-position selector valve;
- a gas flow meter communicating with the fluid system under test;
- means for generating smoke to produce smoke to be delivered to the fluid system under test;
- a first gas inlet line connected between said multi-position selector valve and said means for generating smoke;
- a smoke outlet line connected to said means for generating smoke to deliver the smoke produced by said smoke generating means to the fluid system under test; and
- a second gas inlet line connected between said multi-position selector valve and said gas flow meter,

said multi-position selector valve being placed in a first position to connect said source of gas under pressure to said second gas inlet line so that gas under pressure is delivered to the fluid system under test via said gas flow meter, and said multi-position selector valve being placed in a second position to connect said source of gas under pressure to said first gas inlet line so that gas under pressure is delivered to said smoke generating means.

12. (Withdrawn) The apparatus recited in claim 11, wherein said source of gas under pressure is a supply of nitrogen gas.

13. (Withdrawn) The apparatus recited in claim 11, wherein said source of gas under pressure is a supply of air.

14. (Withdrawn) The apparatus recited in claim 11, further comprising means responsive to the pressure in said smoke outlet line to cause said pressure to be discharged to the atmosphere when said pressure exceeds a predetermined pressure level.

15. (Withdrawn) The apparatus recited in claim 14, wherein said pressure responsive means includes a pressure discharge accumulator communicating with the atmosphere and a smoke outlet check valve connected between said smoke outlet line and said pressure discharge accumulator, said smoke outlet check valve adapted to discharge the pressure in said smoke output line to the atmosphere via said pressure discharge accumulator when the pressure exceeds said predetermined pressure level.

16. (Withdrawn) The apparatus recited in claim 11, further comprising a source of electrical current to be connected to said smoke generating means to supply current to said smoke generating means in order to produce smoke and a pressure responsive switch connected between said source of electrical current and said smoke generating means and responsive to the pressure within said first gas inlet line, said pressure responsive switch adapted to connect and disconnect

said source of electrical current to said smoke generating means depending upon the pressure within said first gas inlet line.

17. (Withdrawn) The apparatus recited in claim 11, further comprising a gas pressure relief check valve connected between said second gas inlet line and the atmosphere and responsive to the pressure within said second gas inlet line to cause said pressure within said second gas inlet line to be discharged to the atmosphere when said pressure exceeds a predetermined pressure level.

18. (Withdrawn) The apparatus recited in claim 11, wherein said multi-position selector valve is placed in a third position to simultaneously connect said first gas inlet line to said second gas inlet line and to said source of gas under pressure.

Claims 19-28 (Cancelled)

29. (New) A method for testing for the presence of leaks in excess of a particular size in an evaporative system of a motor vehicle, said method comprising the steps of:

connecting a gas flow meter having a moving indicator ball in a gas supply line with a source of gas under pressure to a leak tolerance standard having a maximum acceptable leak of predetermined size;

observing the ball position of the gas flow meter with the gas supply line and the gas flow meter connected to the leak tolerance standard to establish a limit that is indicative of the predetermined size of the maximum acceptable leak;

disconnecting the gas supply line and said gas flow meter from the leak tolerance standard and reconnecting the gas supply line and said gas flow meter to an evaporative system under test having a leak of unknown size;

observing the ball position of the gas flow meter with the gas supply line and the gas flow meter connected to the evaporative system under test to provide an indication of the size of the leak thereof; and

comparing the limit established by observing the ball position of the gas flow meter when the gas supply line was connected to the leak tolerance standard with the ball position of the gas flow meter when the gas supply line is connected to the evaporative system under test in order to determine whether the leak in the evaporative system under test is unacceptable and in need of repair.

30. (New) The method for testing for leaks recited in Claim 29, wherein the evaporative system under test to which said gas flow meter and the gas supply line are reconnected is the fuel vapor recovery system of the motor vehicle.

31. (New) The method for testing for leaks recited in Claim 29, wherein the source of gas under pressure to which said gas flow meter is connected is a source of non-flammable gas.

32. (New) The method for testing for leaks recited in Claim 31, wherein said non-flammable gas is nitrogen.

33. (New) The method for testing for leaks recited in Claim 31, wherein said non-flammable gas is carbon dioxide.

34. (New) The method for testing for leaks recited in Claim 29, including the additional step of connecting a unidirectional check valve in the gas supply line between said gas flow meter and the evaporative system under test to prevent the flow of gas in a direction away from the system under test and towards said gas flow meter.

35. (New) A method for testing for the presence of leaks in excess of a particular size in an evaporative system of a motor vehicle, said method comprising the steps of:

connecting a gas flow meter in a gas supply line with a source of gas under pressure to a leak tolerance standard having a maximum acceptable leak of predetermined size;

observing the gas flow indicated by the gas flow meter with the gas supply line and the gas flow meter connected to the leak tolerance standard to establish a limit corresponding to the predetermined size of the maximum acceptable leak;

disconnecting the gas supply line and said gas flow meter from the leak tolerance standard and reconnecting the gas supply line and said gas flow meter to an evaporative system under test having a leak of unknown size;

observing the gas flow indicated by the gas flow meter with the gas supply line and the gas flow meter connected to the evaporative system under test to provide an indication of the size of the leak thereof; and

visually comparing the limit established by observing the gas flow indicated by the gas flow meter when the gas supply line was connected to the leak tolerance standard with the gas

flow indicated by the gas flow meter when the gas supply line is connected to the evaporative system under test in order to determine whether the leak in the evaporative system under test is unacceptable and in need of repair.